Claim listing (clean version)

This claim listing replaces any and all previously submitted claim listings:

1. (currently amended) An antimicrobial peptide corresponding to the structure of the active sites of amino-terminal extension of subunits assembling surface adhesive organelles of pathogenic Gram-negative bacteria,

said peptide further being capable of preventing self –polymerization of equal peptide units, thereby preventing formation of said surface adhesive organelles.

2. (currently amended) The antimicrobial peptide according to claim 1, wherein the pathogenic bacterium is *Esherichia coli.*

3. (currently amended) The antimicrobial peptide according to claim 17 having amino acid sequence of Ala-Thr-Ala-Thr-Leu-Val.

4. (canceled)

5. (withdrawn) The antimicrobial peptide according to claim 17 , wherein

the antimicrobial peptide further comprises a sequence Thr-Ala-Thr-Val-Thr-Val.

6. (currently amended) The antimicrobial peptide according to claim 1, wherein the antimicrobial peptide prevents binding of equal protein units with each other and is

capable of binding with a binding constant of 10^3 M or higher with a polymerizing protein unit.

7. (currently amended) The antimicrobial peptide according to claim 6, wherein the antimicrobial peptide is effective in preventing self-polymerization of bacterial virulence organelles in a concentration less than 10^{-4} M.

8. (withdrawn) The antimicrobial peptide according to claim 6, wherein the antimicrobial peptide inhibits polymerization of Dr haemagglutinin, said antimicrobial peptide further comprising a sequence of TTKL.

9. (withdrawn) A method to treat bacterial infections by preventing self –polymerization of equal peptide units of bacterial surface adhesive organelles, thereby preventing formation of said surface adhesive organelles,

said method further comprising administering to a patient a therapeutically active amount of the antimicrobial peptide of claim 1.

10. (withdrawn) The method according to claim 9, wherein the antimicrobial peptide is further bound to a small molecular or macromolecular substance, thereby increasing the stability of the peptide.

11. (withdrawn) The method according to claim 9, wherein the antimicrobial peptide is applied orally, subcutaneously, or injected into blood circulation.

12. (withdrawn) The method according to claim 11, wherein the antimicrobial peptide is applied in a concentration between 10^{-4} M to 10^{-10} M in sera during prevention or treatment of microbial infections.

13. (withdrawn) A method for obtaining antimicrobial peptides according to claim 1, the method comprising the steps of:

a) Cultivating a non pathogenic test microbial strain expressing recombinant self-polymerizing surface organelles of a bacterium;

b) Adding a candidate compound of antibacterial drug into a mixture of the self-polymerizing organelles in an appropriate concentration;

c) Investigating degree of polymerization of the surface organelle; and

d) Judging that the compound has an antivirulence action when the polymerization is lowered.

14. (withdrawn) The method of claim 13, wherein the microbial strain expressing recombinant surface organelles is *Escherichia coli* and the polymerizing surface organelle is from *Yersinia.*

15. (withdrawn) An inhibitor molecule

preventing non-covalent polymerization of bacterial virulence surface organelles by preventing binding of equal protein units; and

associating with a binding constant of 10^3 M or higher with the polymerizing protein units;

said inhibitor molecule further consisting of three threonines linked together with two similar or different linker molecules .

16. (withdrawn) The inhibitor molecule according to claim 15, wherein the linker molecules are amino acids.

17. (new) The antimicrobial peptide according to claim 2, wherein the structure of the active sites of amino-terminal extension of subunits assembling surface adhesive organelles of pathogenic Gram-negative bacteria consists of 6 amino acids.